

Plant Industry

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The Division of Plant Industry is responsible for ensuring consumers of disease free and pest free plants, grains, seeds, as well as properly labeled agricultural commodities, and the safe application of pesticides and farm chemicals.

Entomological Activities

The Utah Department of Agriculture and Food currently administers nine insect and plant quarantines, which require inspection and enforcement by the State Entomologist. Effective enforcement demands cooperation with federal agencies and regulatory officials of other states and countries. Quarantines currently in effect are: European Corn Borer, Gypsy Moth, Apple Maggot, Plum Curculio, Cereal Leaf Beetle, Pine Shoot Beetle, Japanese Beetle, Mint Wilt and Karnal Bunt.

During 2005, there were approximately 965 State and Federal Phytosanitary Certificates issued under the direction of the State Entomologist. These certificates allow Utah agriculture to ship plants and plant products to other states and foreign countries. The State Entomologist also responded to more than 300 public requests for professional advice and assistance. Such assistance includes insect identification, news releases, control recommendations and participation in various education meetings and workshops.

The State Entomologist administers the Utah Bee Inspection Act (Title 4, Chapter 11), the Insect Infestation Emergency Control Act, and various entomological services under authority of Title 4, Chapter 2. Major functions performed during 2005 are summarized below:

Apple Maggot and Cherry Fruit Fly

The Apple Maggot survey and detection program in Utah requires the efforts of the State Entomologist, one program supervisor, three field scouts and necessary secretarial help. The program was implemented to provide for our continued participation in export markets. In 2005, six hundred (600), traps were used in the adult survey. Since the programs beginning in 1985, property owners are contacted annually on orchard spray management techniques and removal of uncared for and abandoned orchards. Tree removal during 2005 exceeded 2000 trees in abandoned orchards. No Apple Maggots or Cherry Fruit Flies have been found in commercial orchards for severally years.

Bee Inspection

The Utah Bee Inspection Act provides for inspection of all apiaries annually in order to detect and prevent the spread of infectious bee diseases. Without a thorough inspection program, highly contagious diseases could spread rapidly resulting in serious losses to the bee industry in Utah, with corresponding

losses to fruit and seed crop producers who are dependant on bees for pollination. During 2005, thirteen thousand (13,000) colonies of bees were inspected, with the incidence of disease below 2.5 percent.

African Honey Bee

A survey and detection program for African Honey Bee has been in effect for the southern border areas of Utah since 1994. UDAF has put into action a survey and detection program in the southern portion of the state consisting of 125 detection traps. There were no confirmed detections of AHB in Utah during 2005. Early detection, supported with information and education, will be a major defense mechanism against this devastating and alarming insect. Considerable education and public awareness activity has occurred since the AHB was discovered in Mesquite, Nevada in the summer of 1999. AHB have not been reported in Utah to date.

Cereal Leaf Beetle

The Cereal Leaf Beetle was discovered in Morgan County in 1984. It has since been found in seventeen of Utah's agricultural counties, including the nine northern most counties (Box Elder, Cache, Davis, Juab, Morgan, Rich, Utah, Wasatch and Weber). Because Cereal Leaf Beetle can cause a reduction in small grain production up to 75 percent, and domestic grain markets require insect free shipments, UDAF, in cooperation with Utah State University, conducts an annual survey and detection program for this insect. A cooperative insect program with USU has provided beneficial parasitic wasps that prey on Cereal Leaf Beetle. These beneficial parasites have now spread to all northern Utah counties helping to reduce populations significantly. Additional cooperative investigations by Utah State University and the Utah Department of Agriculture and Food into the biology and life expectancy of Cereal Leaf Beetle in compressed hay bales may one day allow shipments of hay from infested areas of the state during certain times of the year.

Gypsy Moth

Gypsy Moths were first found in Salt Lake City in the summer of 1988. Since that time UDAF has been the lead agency in the administration of a major bio-control program that has had a 97% success rate. Moth catches have been reduced from 2,274 in 1989 to one (1) in 2005. The major benefits of this program are: Cost effectiveness, Public nuisance reduction, Forest and natural resource protection, and Watershed protection. In 2005, 2,917 GM traps were placed in 29 counties.

Eradication efforts continue to show significant progress and trapping programs will remain vigorous.

Cricket/Grasshopper

The 2005 Fall Rangeland Insect Survey was completed last August. Information from this survey indicates that we may have 214,660 acres infested with grasshoppers and possibly 644,500 acres infested with Mormon Crickets. Box Elder County has the highest infestation with over 499,000 acres infested. The numbers of acres infested are substantially lower than 769,500 and 2,868,500 as reported in 2004. UDAF and APHIS agree that numbers are down due to the control and treatment programs over the last three years. Large populations of these voracious insects in 1998, 1999, 2000, 2001, 2002, 2003 and 2004 prompted the Governors Declaration of Agricultural Disaster. Federal and State funds provided some relief during 2004, but there were still private farmers, ranchers and homeowners left to use their own resources to control the infestation.

For the past five years, Disaster Declarations by the Governor has focused resources, administered through Plant Industry, to provide relief from major infestations of Mormon Crickets (largest since 1930's) and grasshoppers. This is the sixth year of extremely heavy populations is proving to be another extremely large year again for Mormon Crickets and grasshoppers. The resources from Congress to control infestations on federal lands has increased to \$1,000,000 and Legislative funding provided an additional \$200,000 for control on infested state and private lands. An additional \$6.7 million dollar grant has been awarded to Utah for control of Mormon Crickets and is available until used.

European Corn Borer

Utah has a quarantine (R68-10) in place for products that could harbor the ECB in order to keep this damaging insect from entering the state. A state trapping program is annually conducted in major corn producing areas for this serious pest. In 2005, 147 traps were placed in eight counties, with no detections of ECB.

Red Imported Fire Ant

The Utah Department of Agriculture and Food is approaching the RIFA with survey and detection trapping, quarantine enforcements, port of entry inspection and public education. The Utah RIFA surveys indicate that Washington County (the mostly likely area to get RIFA) is free from RIFA population.

West Nile Virus

West Nile Virus was first detected in the State of Utah during the summer of 2003. This disease again appeared in Utah during the summer of 2004. Five hundred thousand dollars (\$500,000) was appropriated by the 2004 legislature for control of mosquitoes and has been awarded to counties, Cooperative Mosquito Control Areas (CMCA), and mosquito abatement districts to control mosquitoes, the main vector of WNV. An additional fund of \$329,000 was made available in 2005 to help fight West Nile Virus, a disease transmitted by mosquitoes. In Utah, two principal mosquito vectors of West Nile Virus are: 1) *Culex pipiens* (the house mosquito) and 2) *Culex tarsalis* (the marsh mosquito). The major activity period for these disease vectors is from dusk until dawn. Daytime activity is almost non existent. Birds are the

natural hosts of the disease with humans and horses serving as secondary hosts. The majority of people infected with West Nile Virus never develop symptoms. However, a small percentage may develop symptoms such as fever, headache, body aches, etc. A more serious form of the disease can occur when the virus infects the central nervous system.

Japanese Beetle

Utah has a survey and detection program in place, to eradicate and/or deter the establishment of JB insects into the state. In 2005, a total of 484 traps were set in the following counties: Box Elder, Cache, Carbon, Emery, Grand, Salt Lake, Rich, San Juan, Sevier, Uintah, Utah, and Wayne. A positive find of one (1) JB was collected at the Salt Lake Airport, in the checked-baggage area. UDAF authorities felt this uninvited guest "hitched" a ride on an aircraft from its previous location.

Sudden Oak Death

A nationwide quarantine and survey has been implemented by USDA – APHIS due the outbreak of SOD and shipments of nursery stock to Utah and 39 other states. Quarantine actions were taken at 28 local nurseries including sampling and testing in 2004. In 2005, 15 Utah nurseries were surveyed for SOD, 68 host plants were inspected and no positive plants were identified. Utah's forests were also included in the survey with negative findings.

Fertilizer Program

Administration of the Utah Commercial Fertilizer Act (Title 4, Chapter 13) regulates the registration, distribution, sale, use, and storage of fertilizer products. UDAF regulates and licenses fertilizer blenders and monitors the applicators that spray or apply fertilizer and take samples for analysis.

Major functions performed in this program in 2005.

Number fertilizer manufacturers/registrants	266
Number of products received and registered	2,516
Number of products registered because of investigations	150
Number of fertilizers sampled, collected, and analyzed	205
Tonnage sales in Utah (7/1/2004-6/30/2005)	131,614
Number of samples that failed to meet guarantee	6
Guarantee analysis corrected	6
Number of inspection visits to establishments	585
Number of violations of the fertilizer Act	6
Number of blenders licensed	37

Pesticide Disposal Program

UDAF plans to sponsor another Unwanted Pesticide Disposal Program in the future. The total amount collected and disposed over the past ten collections is 152,601 pounds, or 76 tons, from 1993 through 2005.

Pesticide Product Registration Program

1. EMERGENCY USE PERMITS (Section 18).

2000	- 2
2001	- 3

2002 - 3
2003 - 3
2005 - 4

2. SPECIAL LOCAL NEEDS (SLN or 24C's).
4 SLN labels filed in 2005

3. EXPERIMENTAL USE PERMIT (EUP)
2005 - 0

Pesticide Product Registration

Number of pesticide manufacturers or registrants:	899
Number of pesticide products registered:	9,675
Number of new products registered as a result of investigation:	325
Number of violations of the Pesticide Act	35
Number of product registration requests by field representatives:	105

Nursery Inspection Program

Number of licenses issued to handlers of Nursery stock	625
Number of Nursery Inspections conducted	785
Number of violations of the Nursery Act	24

USDA Private Pesticide Applicator Restricted Use Record Survey Program

Number private applicators records surveyed	75
Percent private applicators using RUP products	100%
Percentage of elements recorded as required	100%
Percentage of private applicators without records	0%

Shipping Point and Cannery Grading Program

PRODUCE	No. of Inspections	Pounds Inspected
Three Party Audit (GAP/GHP)	4	Packing sheds
Cherries, Sweet	24	268,920
Onions	231	7,236,925
TOTALS	259	7,505, 845

Pesticide Program

UDAF administers the Utah Pesticide Control Act, which regulates the registration and use of pesticides in Utah. This Act authorizes pesticide registration requirements and the pesticide applicator certification program. UDAF is the lead state agency for pesticide use enforcement under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). UDAF administers sections of FIFRA under which programs are developed and implemented by cooperative grant agreements with the Environmental Protection Agency (EPA). These programs include the Worker Protection Program, Endangered Species Program, Ground Water/Pesticide Protection Program, Certification Program, and Pesticide Enforcement.

Worker Protection Program

This program provides general training, worker and handler pesticide safety training, "train the trainer" program, training verification, outreach and communication efforts, reporting and tracking, and performance review actions. UDAF has adopted

the national Worker Protection Standards (WPS) Verification Program and distributes WPS Worker and Handler Verification cards to qualified WPS trainers and performs WPS training as necessary.

Endangered Species Pesticide Program

Utah has developed an Endangered Species Pesticide Plan. This plan allows the state to provide protection for federally listed species from pesticide exposure while tailoring program requirements to local conditions and the needs of pesticide users. Utah's plan focuses on the use of pesticides as they relate to the protection of threatened and endangered species on private agricultural land and lands owned and managed by state agencies. UDAF is the lead state authority responsible for administering the plan. Through an interagency review committee, special use permits or landowner agreements can be established to allow for the continued use of certain restricted pesticides for those locations that contain threatened and endangered species.

Ground Water/Pesticide Protection Program

EPA is working with UDAF to establish a Ground Water State Management Plan as a new regulatory mechanism under FIFRA to prevent pesticide contamination of the nation's ground water resources. The Utah Ground Water/Pesticide State Management Plan is a state program that has been developed through cooperative efforts of UDAF with various federal, state, and local resource agencies. The plan includes an assessment of risks posed to the state's ground water by a pesticide and a description of specific actions the state will take to protect ground water resources from potentially harmful effects of pesticides.

Certification Program

UDAF has entered into a cooperative agreement with EPA to undertake the following as part of the department's Pesticide Certification program: maintaining state certification programs, state coordination with Utah State University Extension Service, state evaluation and participation in training programs, conduct certification activities, maintain records for certified pesticide applicators, and monitor certification program efforts. UDAF develops and prepares pesticide applicator certification manuals and examinations as part of the licensing requirements of the state.

Pesticide Enforcement Program

UDAF enforcement activities include the following: cancellation and suspension of pesticide products, general compliance monitoring, tracking, sample collection and analysis, enforcement response policy, ground water and endangered species pesticide enforcement activities, and FIFRA Section 19 (f) enforcement actions.

Pesticide Activity

No. of inspections of pesticides sales establishments:	30
No. of physical pesticide samples collected:	50
No. of investigations of pesticide uses:	102
No. of violations:	27
No. of pesticide applicator training sessions:	30

No. of applicators certified Commercial, Non-Commercial and Private: 4,696
 No. of pesticide dealers licensed: 94

Seed Inspection and Testing

Administration of the Utah Seed Act (Title 4, Chapter 16) involves the inspection and testing of seeds offered for sale in Utah. Work performed in FY 2005-2006 is summarized below:

Number of seed samples tested: 1,137
 Number of violations determined: 37

Seed Testing and Seed Law Enforcement

The seed analysts and seed laboratory technicians conduct tests on seed samples submitted by agricultural inspectors, seed companies, and other interested parties. Most common tests include percent germination, purity, and presence of noxious weeds; although a number of other tests are performed upon request. Inspectors monitor the seed trade by collecting representative samples for testing and by checking for proper labeling of all seed offered for sale and for the presence of noxious weeds and other undesirable factors.

Noxious Weed Control Program

The State Weed Specialist administers the Utah Noxious Weed Control act (Title 4, Chapter 17) and coordinates and monitors Weed Control Programs throughout the state. The eleven agricultural field representatives located throughout the state made approximately 1,246 visits and inspections. This includes visits and or direct contact with the agencies listed below:

1. Retail Establishments
2. Weed Supervisors and other County Officials
3. State Agencies
4. Federal Agencies
5. Utility Companies
6. Private Landowners
7. Hay and Straw Certification

Cooperative Weed Management

During the past several years, UDAF has been working diligently with local land management agencies and the counties to encourage the development of Cooperative Weed Management Areas (CWMA's). Weed management areas are designed to bring people together to form partnerships which control noxious or invasive weed species. The CWMA's break down some of the traditional barriers that have existed for many years. The County Weed Departments and the local managers of State and Federal lands, along with private land owners are now able to cooperate and collaborate on similar noxious weed issues. They share resources and help with weed control problems on lands that they do not administer. We now have 25 organized Cooperative Weed Management areas in Utah.

Control of Noxious Weeds

1. The Division Weed Specialist coordinates weed control activities among the county weed organizations and the agricultural field representatives.

2. Surveys of serious weed infestations are conducted and control programs are developed through the county weed supervisors, county weed boards, and various landowning agencies.

3. The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.

4. Noxious Weed Free Hay Certificates.

Activities in Hay and Straw Certification

Certification of hay and straw to be free from noxious weeds has become an important part of allowing these materials to be fed or utilized on public lands throughout Utah and other western states. Weed free certification is now required for all hay and straw used on public land. Plant Industry Compliance Specialists performed the following activities in connection with this program:

Inspections in 25 counties
 Inspections for 90 producers
 Approximately 525,327 hay bales
 Approximately 58,041 straw bales
 Inspected 9,581 acres for hay cubes and 7,500 tons of cubed hay
 Number of Inspections: 127

Commercial Feed Program

Administration of the Utah Commercial Feed Act, (Title 4, Chapter 12) involves inspection, registration, and sampling of commercial feed products. Activities performed during this program in 2005 are summarized below:

Number of feed manufacturers or registrants contacted: 505
 Number of feed products registered: 6,778
 Number of analysis requested of chem. Lab: 1,201
 Number of feed samples collected and tested: 430
 Number of violations: 31
 Number of custom formula Feed mixer: 38

Grain Inspection

The Federal Grain Inspection Service provides, under authority of Title 4, Chapter 2, Section 2, and under designated authority, grain inspection services. Following is a summary of work performed during the past fiscal year under dedicated credit provisions, with expenses paid by revenue received for grading services:

Number of samples tendered: 11,513
 Number of miscellaneous tests conducted: 20,625
 Total number of activities performed: 32,138

NOTE: Volume of work is influenced each year by a number of factors, among which are weather conditions, governmental crop programs, and marketing situations.